YrjÃ¶ Roos

List of Publications by Year
in descending order

59 papers	4,811 citations	186265 28 h-index	128289 60 g-index
62 all docs	62 docs citations	62 times ranked	2792 citing authors

#	Article	IF	Citations
1	Plasticizing Effect of Water on Thermal Behavior and Crystallization of Amorphous Food Models. Journal of Food Science, 1991, 56, 38-43.	3.1	594
2	Melting and glass transitions of low molecular weight carbohydrates. Carbohydrate Research, 1993, 238, 39-48.	2.3	553
3	Phase transitions of mixtures of amorphous polysaccharides and sugars. Biotechnology Progress, 1991, 7, 49-53.	2.6	399
4	Water and Molecular Weight Effects on Glass Transitions in Amorphous Carbohydrates and Carbohydrate Solutions. Journal of Food Science, 1991, 56, 1676-1681.	3.1	379
5	Differential scanning calorimetry study of phase transitions affecting the quality of dehydrated materials. Biotechnology Progress, 1990, 6, 159-163.	2.6	309
6	Glass Transition Temperature and Its Relevance in Food Processing. Annual Review of Food Science and Technology, 2010, 1, 469-496.	9.9	269
7	WATER ACTIVITY and PHYSICAL STATE EFFECTS ON AMORPHOUS FOOD STABILITY. Journal of Food Processing and Preservation, 1993, 16, 433-447.	2.0	235
8	Crystallization of Amorphous Lactose. Journal of Food Science, 1992, 57, 775-777.	3.1	228
9	Influence of trehalose and moisture content on survival of Lactobacillus salivarius subjected to freeze-drying and storage. Process Biochemistry, 2004, 39, 1081-1086.	3.7	199
10	Effect of Moisture on the Thermal Behavior of Strawberries Studied using Differential Scanning Calorimetry. Journal of Food Science, 1987, 52, 146-149.	3.1	178
11	Phase Transitions of Amorphous Sucrose and Frozen Sucrose Solutions. Journal of Food Science, 1991, 56, 266-267.	3.1	134
12	Limonene encapsulation in freeze-drying of gum Arabicâ€“sucroseâ€“gelatin systems. LWT - Food Science and Technology, 2007, 40, 1381-1391.	5.2	132
13	Differences in the physical state and thermal behavior of spray-dried and freeze-dried lactose and lactose/protein mixtures. Innovative Food Science and Emerging Technologies, 2006, 7, 62-73.	5.6	96
14	Microstructure formation of maltodextrin and sugar matrices in freeze-dried systems. Carbohydrate Polymers, 2012, 88, 734-742.	10.2	66
15	Glass transition and water plasticization effects on crispness of a snack food extrudate. International Journal of Food Properties, 1998, 1, 163-180.	3.0	59
16	Food Engineering at Multiple Scales: Case Studies, Challenges and the Futureâ€"A European Perspective. Food Engineering Reviews, 2016, 8, 91-115.	5.9	52
17	Glass transition and crystallization behaviour of freeze-dried lactoseâ€“salt mixtures. LWT - Food Science and Technology, 2007, 40, 536-543.	5.2	51
18	Phase Transitions and Unfreezable Water Content of Carrots, Reindeer Meat and White Bread Studied using Differential Scanning Calorimetry. Journal of Food Science, 1986, 51, 684-686.	3.1	47

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19	Stability and loss kinetics of lutein and Î²-carotene encapsulated in freeze-dried emulsions with layered interface and trehalose as glass former. Food Research International, 2014, 62, 403-409.	6.2	45
20	X-ray diffraction analysis of lactose crystallization in freeze-dried lactoseâ€“whey protein systems. Food Research International, 2015, 67, 1-11.	6.2	41
21	Water sorption and time-dependent crystallization behaviour of freeze-dried lactoseâ€“salt mixtures. LWT - Food Science and Technology, 2007, 40, 520-528.	5.2	39
22	Gelatinization and freeze-concentration effects on recrystallization in corn and potato starch gels. Carbohydrate Research, 2008, 343, 903-911.	2.3	37
23	Structural relaxations of amorphous lactose and lactose-whey protein mixtures. Journal of Food Engineering, 2016, 173, 106-115.	5.2	37
24	Mechanical relaxation times as indicators of stickiness in skim milkâ€“maltodextrin solids systems. Journal of Food Engineering, 2011, 106, 306-317.	5.2	35
25	Glass Transition-Associated Structural Relaxations and Applications of Relaxation Times in Amorphous Food Solids: a Review. Food Engineering Reviews, 2017, 9, 257-270.	5.9	35
26	Solid-state characterization of spray-dried ice cream mixes. Colloids and Surfaces B: Biointerfaces, 2005, 45, 66-75.	5.0	34
27	Physical properties of maltodextrin DE 10: Water sorption, water plasticization and enthalpy relaxation. Journal of Food Engineering, 2016, 174, 68-74.	5.2	33
28	Effects of Drying Conditions on Water Sorption and Phase Transitions of Freeze-Dried Horseradish Roots. Journal of Food Science, 1990, 55, 206-209.	3.1	31
29	Development and Characterization of Biodegradable Composite Films Based on Gelatin Derived from Beef, Pork and Fish Sources. Foods, 2013, 2, 1-17.	4.3	31
30	Casein molecular assembly affects the properties of milk fat emulsions encapsulated in lactose or trehalose matrices. International Dairy Journal, 2007, 17, 683-695.	3.0	29
31	Carotenoid stability in high total solid spray dried emulsions with gum Arabic layered interface and trehaloseâ€“WPI composites as wall materials. Innovative Food Science and Emerging Technologies, 2016, 34, 310-319.	5.6	29
32	Spray drying of high hydrophilic solids emulsions with layered interface and trehalose-maltodextrin as glass formers for carotenoids stabilization. Journal of Food Engineering, 2016, 171, 174-184.	5.2	26
33	Water and Pathogenic Viruses Inactivationâ€"Food Engineering Perspectives. Food Engineering Reviews, 2020, 12, 251-267.	5.9	26
34	Isothermal study of nonenzymatic browning kinetics in spray-dried and freeze-dried systems at different relative vapor pressure environments. Innovative Food Science and Emerging Technologies, 2006, 7, 182-194.	5.6	24
35	Dielectric and Mechanical Properties Around Glass Transition of Milk Powders. Drying Technology, 2010, 28, 1044-1054.	3.1	24
36	Effects of maltodextrin content in double-layer emulsion for production and storage of spray-dried carotenoid-rich microcapsules. Food and Bioproducts Processing, 2020, 124, 208-221.	3.6	24

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37	Protein Modifications in High Protein-Oil and Protein-Oil-Sugar Systems at Low Water Activity. Food Biophysics, 2014, 9, 49-60.	3.0	22
38	Stability of flocculated particles in concentrated and high hydrophilic solid layer-by-layer (LBL) emulsions formed using whey proteins and gum Arabic. Food Research International, 2015, 74, 160-167.	6.2	22
39	Quantification of Protein Hydration, Glass Transitions, and Structural Relaxations of Aqueous Protein and Carbohydrateâ€“Protein Systems. Journal of Physical Chemistry B, 2015, 119, 7077-7086.	2.6	20
40	Carotenoids stability in spray dried high solids emulsions using layer-by-layer (LBL) interfacial structure and trehalose-high DE maltodextrin as glass former. Journal of Functional Foods, 2017, 33, 32-39.	3.4	20
41	Water sorption isotherms of freezeâ€dried milk products: applicability of linear and nonâ€linear regression analysis in modelling. International Journal of Food Science and Technology, 1997, 32, 459-471.	2.7	19
42	Glass Transition and Re-Crystallization Phenomena of Frozen Materials and Their Effect on Frozen Food Quality. Foods, 2021, 10, 447.	4.3	19
43	State transitions and freeze concentration in trehaloseâ€“proteinâ€“cornstarch mixtures. LWT - Food Science and Technology, 2006, 39, 930-938.	5.2	18
44	Water sorption-induced crystallization, structural relaxations and strength analysis of relaxation times in amorphous lactose/whey protein systems. Journal of Food Engineering, 2017, 196, 150-158.	5.2	16
45	Food engineering and food science and technology: Forward-looking journey to future new horizons. Innovative Food Science and Emerging Technologies, 2018, 47, 326-334.	5.6	14
46	Mechanical Î±â€relaxations and stickiness of milk solids/maltodextrin systems around glass transition. Journal of the Science of Food and Agriculture, 2011, 91, 2529-2536.	3.5	12
47	Lipid Encapsulation in Glassy Matrices of Sugar-Gelatin Systems in Freeze-Drying. International Journal of Food Properties, 2008, 11, 363-378.	3.0	10
48	The State of Aggregation of Casein Affects the Storage Stability of Amorphous Sucrose, Lactose, and Their Mixtures. Food Biophysics, 2007, 2, 10-19.	3.0	8
49	Solidâ€“Liquid Transitions and Stability of HPKO-in-Water Systems Emulsified by Dairy Proteins. Food Biophysics, 2011, 6, 288-294.	3.0	8
50	Frozen State Transitions in Freeze-Concentrated Lactose-Protein-Cornstarch Systems. International Journal of Food Properties, 2007, 10, 577-587.	3.0	6
51	Double interface formulation for improved Î±â€tocopherol stabilisation in dehydration of emulsions. Journal of the Science of Food and Agriculture, 2013, 93, 2646-2653.	3.5	6
52	Thermal gelation and hardening of whey protein beads for subsequent dehydration and encapsulation using vitrifying sugars. Journal of Food Engineering, 2020, 279, 109966.	5.2	6
53	Encapsulant-bioactives interactions impact on physico-chemical properties of concentrated dispersions. Journal of Food Engineering, 2021, 302, 110586.	5.2	6
54	Physical State Study of (Sugar Mixture)-Polymer Model Systems. International Journal of Food Properties, 2010, 13, 184-197.	3.0	5

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55	Effects of Aronia polyphenols on the physico-chemical properties of whey, soy, and pea protein isolate dispersions. Food Production Processing and Nutrition, 2021, 3, .	3.5	3
56	Formation of dry beads for bioactives encapsulation by freeze granulation. Journal of Food Engineering, 2022, 317, 110847.	5.2	3
57	Food Engineering Reviews Special Issue based on the 13th International Congress on Engineering and Food â€" (ICEF 13). Food Engineering Reviews, 2021, 13, 1-2.	5.9	2
58	Sugar Crystallization and Glass Transition as Destabilizing Factors of Protein-Stabilized Emulsions. Food Biophysics, 2012, 7, 93-101.	3.0	1
59	Bioactives and extracts affect the physico-chemical properties of concentrated whey protein isolate dispersions. Food Production Processing and Nutrition, 2022, 4, .	3.5	1